

## Lunar Spectral Irradiance Monitor, Phase I

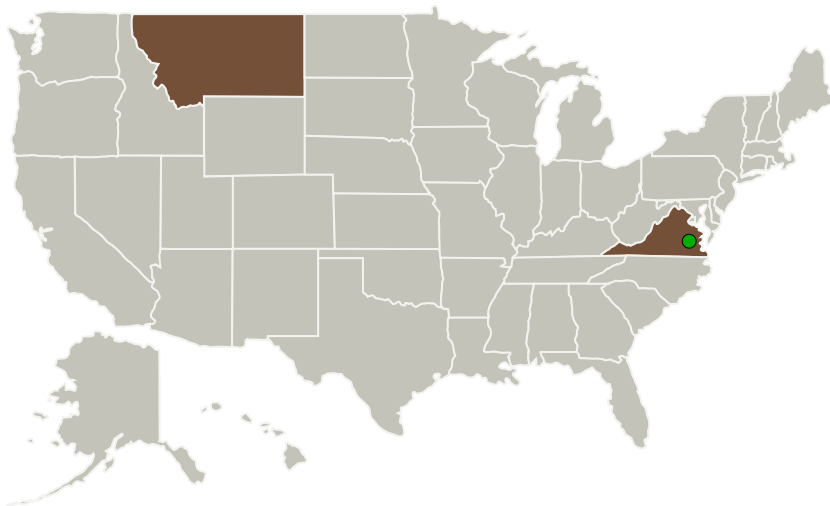
Completed Technology Project (2016 - 2016)



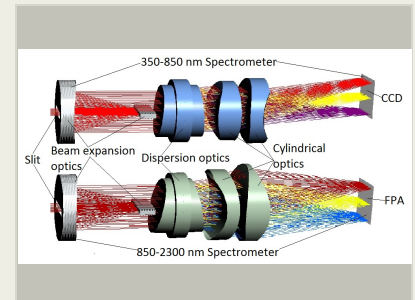
## Project Introduction

During this effort an instrument for calibrating the lunar irradiance will be designed. Such an instrument will lead to reliable exoatmospheric calibration for past, current, and future earth-viewing instruments and improve the accuracy of their data products, which in turn will improve climate change and weather models. The instrument will measure both the solar and lunar irradiances, which will enable cross calibration with the TSIS mission. The proposed instrument concept has been formulated to take advantage of the near-collimated nature of the input signals. The work plan is to develop detailed ray-trace and radiometric models of the instrument. The error budget for the instrument will be analyzed and pre- and post-launch calibration plans will be formulated.

## Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
Resonon, Inc.	Lead Organization	Industry	Bozeman, Montana
● Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia



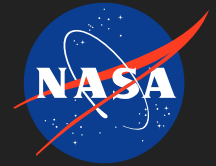
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## Primary U.S. Work Locations

Montana

Virginia

## Project Transitions

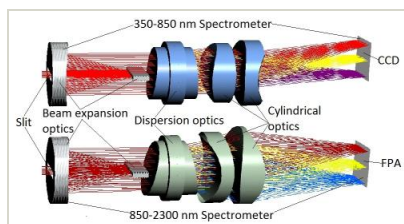
**June 2016:** Project Start

**December 2016:** Closed out

### Closeout Documentation:

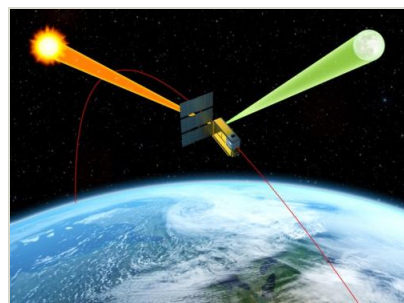
- Final Summary Chart(<https://techport.nasa.gov/file/139717>)

## Images



### Briefing Chart Image

Lunar Spectral Irradiance Monitor, Phase I  
(<https://techport.nasa.gov/image/129272>)



### Final Summary Chart Image

Lunar Spectral Irradiance Monitor, Phase I Project Image  
(<https://techport.nasa.gov/image/133437>)

## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Organization:

Resonon, Inc.

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

## Project Management

### Program Director:

Jason L Kessler

### Program Manager:

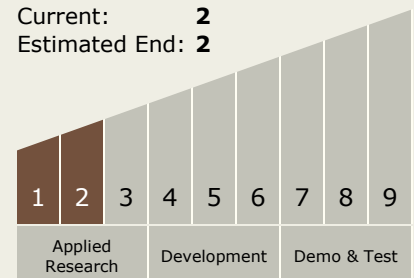
Carlos Torrez

### Principal Investigator:

Rand Swanson

## Technology Maturity (TRL)

Start: **1**  
Current: **2**  
Estimated End: **2**



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## Technology Areas

### Primary:

- TX08 Sensors and Instruments
  - └ TX08.1 Remote Sensing Instruments/Sensors
    - └ TX08.1.3 Optical Components

## Target Destinations

The Moon, Mars, Outside the Solar System, The Sun, Earth, Others Inside the Solar System